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A CORRECTION

OF CERTAIN STATEMENTS PUBLISHED  
IN THE "ZOOPHILIST"

ALSO

A CASTIGATION AND AN APPEAL

BY

H. NEWELL MARTIN, M.A., M.D., D.Sc.

*Professor in the Johns Hopkins University.*



BALTIMORE

1885.





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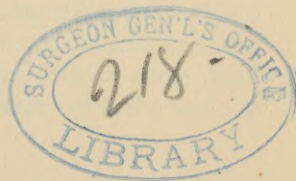
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PRESS OF ISAAC FRIEDENWALD.



There is issued monthly in England a journal named the *Zoophilist*, endorsed, if statements on its title-page be true, by Societies including in their membership many persons whose good opinion is a worthy object of desire.

This journal has for some time devoted its energies to the malicious misrepresentation of physiologists and others in Europe who differ in opinion from its editors. Its essential untruthfulness having been repeatedly exposed, it is possible that its circulation is beginning to languish. Whatever the reason, it speaks in the issue of December 1, 1884, of the "lethargy and indifference which, unfortunately, sometimes seem to be creeping over the public mind." Perhaps to arouse the public from this lethargy, it publishes what purports to be an account of experiments made by me: an account so glaringly false that exposure must have been anticipated. However, by choosing a victim across the Atlantic a few weeks at least could be counted on, during which the stimulant might act; and that, too, at a period of the year when a renewal of annual subscriptions was very desirable.

Moreover, by a failure to observe that rule of common decency which prescribes that a copy of a printed attack on any person shall be sent to him by those responsible for its publication, the *Zoophilist* people have gained three months during which to hold me up, undefended and unaware, to public obloquy. Only by accident, two or three days since, was my attention called to the December number of this scurrilous journal.

The published paper of mine which the *Zoophilist* takes as a text for some two pages of misrepresentation is entitled "The direct influence of gradual variations of temperature upon the rate of beat of the dog's heart." It was sent by me to one of the secretaries of the Royal Society of London, with the request that he present it to the Society. He kindly did so, and the paper was then, in accordance with invariable custom,

referred to a committee of experts. This committee advised that it be printed in full in the Transactions of the Society. The Council of the Royal Society subsequently selected it, from among all other papers presented to them and dealing with animal motions, as the "Croonian Lecture" for the year 1883.

Having this endorsement from the most important body of scientific men in Great Britain, I am, naturally, not greatly worried because the *Zoophilist* speaks of my "learned jargon and supposed results." Had it stopped there I should have nothing to say. Its editors are entitled to their opinion: this, truly, is not of much weight; were it only honest, I should never dream of meddling with them on account of it. The *Zoophilist* has, however, gone far beyond the boundary which separates honest from dishonest argument; it has wilfully so misstated my doings as to put those responsible for its publication outside the pale of reasonable discussion, and to make it a public duty to expose them. I shall therefore address myself to the general public, who have a right to know whether, either with or without reasonable cause, I have inflicted frightful torments on sensitive creatures. More especially have the people of Baltimore who intrust me with the education of their sons, a right to know whether I am abusing that trust by teaching them to wantonly inflict pain.

In order to expose the falsehoods of the *Zoophilist* I must state the object and exact nature of the investigation which it pronounces to have been the cause of "most frightful torments." In so doing I shall have to deal with dry, scientific facts, having nothing thrilling or blood-curdling about them. These may seem tedious to the lay reader, especially to one used to the highly-spiced fiction of the *Zoophilist*; but I ask a patient hearing, if for no other end than to vindicate my University from the charge of having placed one of its most important departments under the direction of a callous brute.

That my experiments, treated of by the *Zoophilist* under the head of "English and American Callousness," were practically useful and caused but little pain can be easily shown.

First, as to usefulness: Every one is aware that in very many cases, severe fevers result in death. It is well known to medical men that most such deaths are due to failure of the heart. This failure is caused by too rapid rate of beat, the organ not getting rest enough between its strokes for nourishment and repair. This quicker beat might be due to any of four or five possible causes, stated more fully in my original paper. To ascertain which of them was mainly responsible for it, and



thus throw light upon the proper means to be adopted to save life, was the object of my research ; an object which, I am proud to say, I in large measure attained.

Next, as to the amount of pain inflicted : My first endeavor was to put out of action, to *kill*, all parts of the body but the heart and lungs. These do not possess consciousness and are incapable of suffering pain when the brain is dead. In my paper it is stated that " the fundamental idea on which all my work on the isolated mammalian heart has been based is to occlude all vessels of the systemic circulation except those supplying the heart itself. . . . The heart and lungs being supplied with blood, alone retain their vitality ; all extraneous nerve centres, getting no blood, soon die with the remainder of the animal." In the next paragraph I state that the animal was, as a preliminary, " placed under the influence of chloroform, ether, morphia, or curaré." To the matter of curaré I shall return presently. All the animals but two were operated on without its use, and while under the influence of some one or more of the above-named anæsthetics. In these cases no pain whatever was inflicted except, in some, the slight smarting due to hypodermic injection of morphia. In order to expose the heart and tie the main arteries, the chest of the perfectly unconscious animal was opened ; this and the death of the brain, which keeps the muscles of breathing at work, made the employment of artificial respiration necessary. The whole creature, except heart and lungs, having been killed while deeply narcotised, blood, whose temperature was varied by carefully devised apparatus, was circulated through those organs, and through them only ; and its effect upon the rate of beat of the heart observed. The heart and lungs were left in the chest of the dead dog simply because it formed a better receptacle for them than any I could make. So far as the experiment proper was concerned they might have been removed and placed in any vessel of suitable shape and size.

After the experiments made under undoubted anæsthetics were completed, the apparatus perfected, and those of my pupils who acted as my assistants thoroughly skilled, so that all risk of failure was reduced to a minimum, two experiments were performed under curaré, a drug the power of which to destroy consciousness is still in doubt. The reason for making these was that chloroform, ether, and morphia act themselves on the heart ; and to finally clinch the question as to the influence of hot blood on that organ, it was necessary to experiment on a heart which had not been exposed to possible alteration by the action of any one of them.

In the two cases in which curaré was used, a small cut was made

through the skin on one side of the neck, so as to expose a part of the jugular vein. This vein was tied, the nozzle of a syringe placed in it, and a few drops of solution of curaré injected. The skin cut no doubt caused a little pain, but not more than that resulting from a cut finger, even if a dog's skin were as sensitive as that of man, which it is well known not to be. Tying the vein, inserting the syringe, and injecting the curaré are painless operations. Next the skin in front of the neck was divided for a short distance, and through this incision the muscles covering the windpipe and the carotid arteries were carefully pushed aside (an operation which causes no pain); then a tracheotomy tube, such as surgeons often place in the windpipe of children threatened by death from croup, was inserted in the dog's windpipe, both carotid arteries were tied, and the sensory nerves going from the heart and lungs to the brain divided. This whole operation occupied, at the outside, three or four minutes; and once the carotids were closed, the supply of blood to the brain was reduced to so small a quantity that all feeling was deadened, and the animal, in that regard, in the condition of a person in a fainting fit. Then the upper part of the chest was opened and the subclavian arteries tied. To accomplish this took some three or four minutes after the animal had been made almost completely unconscious by tying its carotids.

The brain gets blood only from the carotid and vertebral arteries; the latter are small branches of the subclavians. After the subclavians had been tied, total unconsciousness resulted within less than a minute.

The operation was then completed as in the cases in which anæsthetics were given.

To sum up. In the whole series of experiments no animals, except two, suffered any more pain than the skin prick necessary to administer morphia hypodermically. In the two exceptional cases the pain was due to small incisions through the skin of the neck and the introduction of a tracheotomy tube. Within four minutes this pain was nearly (probably completely) abolished by tying the main arteries of the brain, and within another four minutes was made impossible by the tying up of the remaining two small arteries which carry blood to that organ. So that within eight minutes from the beginning of the experiment the animal was past all possibility of feeling.

Now let us turn to the account given by my anonymous slanderer in the *Zoophilist*. I shall not characterize as falsehoods any of his statements which could possibly have been made through ignorance. When, however, he proceeds from the graphic description of imaginary tortures,



to the misstatement of facts concerning which it was impossible for him to be mistaken, I shall not hesitate to brand him as he merits. He is *hostis humani generis*, and to be treated as such. I shall number consecutively such of his falsehoods as I quote, and precede the numbers by that monosyllable which the English language provides for use in such cases.

#### THE ZOOPHILIST.

"In the terrible experiments . . . which we exposed some time ago, it might well have been anticipated that the lowest depths of torment had been reached. But Dr. Michael Foster . . . has found something even more outrageously inhuman, and has had it published in the Philosophical Proceedings (*sic*) of the Royal Society for the year 1883. These new experiments were performed by Professor H. Newell Martin, M.D., D. Sc., of the Johns Hopkins University."

"We do not know whether the energetic opponents of scientific torture in America are aware of these experiments, but at any rate they will now become informed upon the subject, and will, we hope, re-echo in that far-off land the deep protest which we now utter against the uncontrolled perpetration of experimental operations on the dog which it would not be an exaggeration to characterise as brutal."

"It will be seen that . . . the animals are said to be placed under the influence of chloroform, ether, morphia, *or* curaré."

#### THE TRUTH.

The paper was not "found" by Dr. Michael Foster, but sent to him by me; he did not "have it published," except as one member among many of the Council of the Royal Society. It is, however, possible that the writer makes the contrary statements in ignorance, and I give him the benefit of the doubt.

Whether my "experimental operations" were brutal, my readers must judge for themselves. I have placed the facts before them.

By italicising the "*or*" before curaré the writer insinuates that my whole statement is uncandid; he also thus leads up to his own falsehoods.

"But when the fuller details of the treatment of each animal come to be given, it is stated in four cases that the dog to be used was chloroformed during the operation of isolating the heart, and in two that it was narcotised by morphia injected subcutaneously. But by the expression '*after tracheotomy*,' which indicates that artificial respiration was set up, it is absolutely certain that each unfortunate beast was also curarised,"

"in which condition it would be impossible to anæsthetise it."

"We are compelled thus to generalise the operations in the narrator's own words, the details being too absolutely sickening for repetition."

"An eminent physiologist informs us, however, that it is far more likely to have been the case that just as vivisectors have tried how much of the brain they could remove or destroy without extinguishing the life of an animal, an attempt was here made to perpetrate a corresponding experiment upon the blood circulation."

"In this case, efforts were made to keep the animal alive for as long a time as possible,"

LIE 1. No one of these six animals had any curaré, and the writer in the *Zoophilist* knows it. Why artificial respiration was used I have already explained.

LIE 2. It is perfectly possible to anæsthetise a curarised animal, and I always give one of the undoubted anæsthetics along with curaré, when compatible with the end in view.

LIE 3. The generalisation of the *Zoophilist*, beginning "In plain English, what was done," fills seventeen and three-quarters lines. Of these, one line and a word are quoted from my paper.

That the informant of the *Zoophilist* is eminent is possible; that he is a physiologist is improbable; that he is "an eminent physiologist" is so nearly impossible that I run little risk of committing an injustice when I characterise this statement as LIE 4.

LIE 5. The aim throughout was to kill all the animal except its heart and lungs, as quickly as possible.



“during the whole of which period it was undergoing unspeakable agony.”

LIE 6. No one of the animals suffered agony ; only two suffered pain ; and this slight pain lasted less than ten minutes, though the experiments continued for hours.

On the last page of the *Zoophilist* is the printed statement that it is the organ of the Victoria Street Society for the Protection of Animals from Vivisection ; also a list of the officers of that Society.\*

In that list appears your name, my Lord Chief Justice of England. Do you, whose glory it is to be the sworn servant of equity between man and man, intend to countenance a journal which exists by and for defamation of character ?

Your eminence Cardinal Manning, your name also appears in this list ; also yours, my Lord Bishops of Winchester, of Bath and Wells, of Oxford, and of Liverpool. You venerate and teach a moral code which contains the solemn prohibition, “Thou shalt not bear false witness against thy neighbour.” Are you willing to endorse a publication which habitually violates that command ?

You, Sir William Thomson, are a vice-president of this Society. Last October you were the honored guest of the Johns Hopkins University, and in a special way of its Biological Laboratory. You stood in my place in my class-room, day after day, and from it addressed your students. Do you believe that my laboratory is organized for the purpose of wantonly torturing dumb animals and of training students to practice such torture ? If not, do you intend to support by your weighty authority, as a leader in experimental science, the mercenary scribes of the *Zoophilist* ?

You, princes and princesses, duchesses, marquises, earls, lords, ladies and gentlemen, vice-presidents and members of the committee, are you willing to remain officers of a society which uses a scurrilous newspaper as its mouthpiece ? A copy of this pamphlet will be sent to each of you ; you must then decide whether you are willing to continue responsible for the propagation of falsehood.

My fellow-physiologists of the United States, have you no duty in this matter ? For some reason our British brethren have to a great extent followed a policy of silence in dealing with unfair attacks. For myself,

\*I rely here on the number published last July, the only one at hand. The copy of the December number which I possess had its last page torn off before it reached me.

I shall make it my business to expose slander circulated concerning my work whenever I think it desirable. But individual opposition to an unscrupulous corporation is not sufficient. The article in the *Zoophilist* which I have shown up in the preceding pages, laid its publishers open to trial and conviction for criminal libel. They knew, however, that a college professor would not be likely to face the expense of such a lawsuit, and have taken advantage of this knowledge. Is it not time for us to combine, that we may secure the due punishment of such lawless attacks?

Further, as official representatives of that science which has for its objects the discovery of the phenomena of life, of the conditions of health, and the methods of preventing and curing disease in man and the lower animals, is it not our duty to protect the general public from being led astray by falsehood? To us the stories of the *Zoophilist* are so incredible, we hardly realize that any one can be deceived by them. We must nevertheless bear in mind that persons unacquainted with the objects and methods of physiological science, can hardly help being imposed upon by such ingeniously falsified statements. No honest man or woman finds it easy to believe that, month after month, year after year, falsehood upon falsehood should be printed and disseminated without some substantial basis of fact. Yet this has been, is, and no doubt will be, the aim and policy of the *Zoophilist*, and this journal is now being energetically distributed in the United States.

If the precise truth concerning every physiological experiment made in this country be brought before the public immediately after its misrepresentation in any anti-vivisection journal, our science is safe. Truth cannot hurt it. Publicity will swell the ranks of its students. Legislation impeding our work need not be feared. Human and animal disease and suffering will be diminished, life prolonged, and the world made better as well as happier, through our researches. If we fail to use every effort to protect and promote these researches, are we not guilty toward our fellow-men and the lower animals dependent on us?

Friends and fellow-townsmen, I have placed before you a statement of facts which makes it clear that any assertion proceeding from those persons who desire to prohibit experiments on animals is open to suspicion as regards its truthfulness.

I have lived and worked among you for nearly nine years in good repute, and now that a foreign journal is circulated through this community, describing me as a monster glorying in the useless torment of helpless



victims, you may deem it needless for me to notice the charge. But, in view of the nature of this attack, the source whence it proceeds, and the movement it is designed to initiate, I have felt it my duty to lay the matter before you.

Hereafter, when you may be assailed by charges of inhumanity brought against me and those who work with me, if you feel the least doubt as to the falsity of such accusations, I beg you to visit my laboratory and judge for yourselves of what goes on within its walls.

*February 25, 1885.*









